

WHAT IS CLAIMED:

1. A storage medium data protecting method of protecting data on a storage medium, comprising:

5 a step of generating key data, encrypting the key data with a password, and writing the encrypted key data to said storage medium;

a step of encrypting the data with the key data, and writing the encrypted data to said storage medium;

10 a step of reading the encrypted key data from said storage medium;

a step of decoding the encrypted key data with the password; and

a step of decoding the data on said storage medium with the decoded key data.

15 2. A storage medium data protecting method according to claim 1, wherein said key data generating step comprises a step of generating the key data per logic sector on said storage medium.

20 3. A storage medium data protecting method according to claim 2, wherein said key data generating step comprises a step of generating the key data per logic sector on said storage medium when writing the data.

25 4. A storage medium data protecting method according to claim 1, wherein said key data generating step comprises a step

of generating the key data by combining a predetermined number of pieces of random data.

5 5. A storage medium data protecting method according to claim 1, further comprising:

a step of decoding, after reading the encrypted key data from said storage medium, the encrypted key data with an old password designated by a user; and

10 a step of writing, after encrypting the decoded key data with a new password designated by the user, the encrypted key data to said storage medium.

15 6. A storage medium data protecting method according to claim 1, wherein said step of writing the encrypted key data to said storage medium comprises a step of encrypting the key data with each of a plurality of passwords, and writing the encrypted key data to said storage medium, and

said step of decoding the key data comprises a step of decoding the read/encrypted data with a password designated.

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25 7. A storage medium data protecting method according to claim 1, wherein said step of writing the encrypted key data to said storage medium comprises a step of encrypting the key data with one password, writing the encrypted key data to said storage medium, encrypting other password with one password, and writing other encrypted password, and

said step of decoding the key data comprises a step of

decoding other encrypted password with the other password, and obtaining the one password, and a step of decoding the encrypted key data with the one password.

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P10 4  
8. A storage medium data protecting apparatus for protecting data on a storage medium, comprising:

a storage medium; and

a control circuit for reading and writing the data from and to said storage medium,

10 wherein said control circuit has:

a write mode of encrypting, after generating key data, the key data with a password, writing the encrypted key data to said storage medium, encrypting the data with the key data, and writing the encrypted data to said storage medium; and

15 a read mode of decoding, after reading the encrypted key data from said storage medium, the encrypted key data with the password, and decoding the data on said storage medium with the decoded key data.

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9. A data protecting apparatus according to claim 8, wherein said storage medium is constructed of a storage medium from and to which the data is read and written per logic sector, and

said control circuit generates the key data per logic  
25 sector on said storage medium.

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10. A data protecting apparatus according to claim 9,

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wherein said control circuit generates the key data per logic sector when writing the data.

11. A data protecting apparatus according to claim 8,  
5 wherein said generates the key data by combining a predetermined number of pieces of random data.

12. A data protecting apparatus according to claim 8,  
10 wherein said control circuit decodes, after reading the encrypted key data from said storage medium, the encrypted key data with an old password designated by a user, and writes, after encrypting the decoded key data with a new password designated by the user, the encrypted key data to said storage medium.

13. A storage medium data protecting apparatus according  
15 to claim 8, wherein said control circuit has:

a write mode of encrypting the key data with each of a plurality of passwords and writing the encrypted key data to said storage medium; and

20 a read mode of decoding the read/encrypted key data with the designated password.

14. A storage medium data protecting apparatus according  
to claim 8, wherein said control circuit has:

a write mode of encrypting the key data with one password, writing the encrypted key data to said storage medium, encrypting other password with one password, and writing other

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encrypted password; and

a read mode of decoding other encrypted password with the other password, obtaining the one password, and thereafter decoding the encrypted key data with the one password.

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15. A storage medium having protected data is stored with:  
key data encrypted with a password; and  
data encrypted with the key data.